



NOAA's NATIONAL WEATHER SERVICE

Western Region Notes

May 19, 2005

REGIONAL DIRECTOR'S OFFICE



2005 Jefferson and Holm Award Recipients Announced:

NOAA's National Weather service Cooperative Observer Program is honoring nine observers with Thomas Jefferson Awards and 25 observers with John Campanius Holm Awards for 2005. These two prestigious national awards recognize outstanding cooperative observers.

Western Region is honored to have three Jefferson Award recipients and eight Holm Award recipients:

Jefferson Awards:

Joseph L. Bridges
James Wood, Jr.
Janet L. Zieg

Dilley 1S, OR
Loma 1WNW, MT
Milligan 14SE, MT

submitted by WFO Portland
submitted by WFO Great Falls
submitted by WFO Great Falls

Holm Awards:

Sandra J. Lennon
Beth Jones
Galbreath Family
Bill Moran
Fred and Della Wix
Carol Hanks
Peggy Wolf
William G. Hofmann

Cascadia, OR
Malta, ID
Ritzville 1SE, WA
Libby 32SSE, MT
Culbertson, MT
Blue Eagle Ranch, NV
San Miguel Wolf Ranch, CA
Rosalia, WA

nominated by WFO Pocatello
nominated by WFO Pocatello
nominated by WFO Spokane
nominated by WFO Missoula
nominated by WFO Glasgow
nominated by WFO Las Vegas
nominated by WFO Los Angeles
nominated by WFO Spokane

Those individuals nominated who were not selected for an award this year will receive a letter of appreciation from NWSH acknowledging their volunteer efforts.

METEOROLOGICAL SERVICES DIVISION

Statement of the Week: This week's Statement of the Week is a special weather statement from WFO Sacramento alerting the public to the dangers of increased snowmelt and the associated dangers of high flows during spring time. Given the recent longer term drought and absence of deep snow packs, Service Hydrologist Cindy Matthews' statement was a timely reminder of the dangers of swift water. Good work, Cindy.

SPECIAL WEATHER STATEMENT
NATIONAL WEATHER SERVICE SACRAMENTO CA
200 PM PDT FRI MAY 13 2005

CAZ013>019-063-064-066>069-142100-
BURNEY BASIN / EASTERN SHASTA COUNTY-CARQUINEZ STRAIT AND DELTA-
CENTRAL SACRAMENTO VALLEY-CLEAR LAKE/SOUTHERN LAKE COUNTY-
MOTHERLODE- MOUNTAINS SOUTHWESTERN SHASTA COUNTY TO NORTHERN
LAKE COUNTY-NORTHEAST FOOTHILLS/SACRAMENTO VALLEY-NORTHERN
SACRAMENTO VALLEY- NORTHERN SAN JOAQUIN VALLEY-SHASTA LAKE AREA
/ NORTHERN SHASTA COUNTY-SOUTHERN SACRAMENTO VALLEY-WEST
SLOPE NORTHERN SIERRA NEVADA-WESTERN PLUMAS COUNTY/LASSEN
PARK-
200 PM PDT FRI MAY 13 2005

...WARMER TEMPERATURES GENERATING HIGHER FLOWS ON MOUNTAIN
STREAMS AND RIVERS...

WARMER TEMPERATURES THIS WEEK AND FORECAST FOR THIS WEEKEND
ARE INCREASING THE RATE OF MELT FROM THE SIERRA NEVADA MOUNTAIN
SNOW PACK. THIS IS RESULTING IN INCREASED STAGES ON THE MOUNTAIN
RIVERS AND STREAMS. THE SPRING 2005 SNOWPACK IS GREATER THAN WE
HAVE SEEN SINCE THE LATE 1990S. THIS IS GREAT NEWS FOR RESERVOIR
OPERATORS WHO ARE FILLING THE RESERVOIRS. PEAK STAGES GENERATED
BY THE MELTING SNOW ARE FORECAST TO OCCUR BETWEEN NOW AND
EARLY JUNE ON MOST MOUNTAIN RIVERS AND STREAMS. MINOR LOWLAND
FLOODING ALONG THESE WATERWAYS MAY BE EXPERIENCED ANYTIME
DURING THAT PERIOD.

WARMER TEMPERATURES ALSO BRING AN INCREASE IN OUTDOOR
ACTIVITIES. MANY OF THESE ACTIVITIES INVOLVE FUN IN AND AROUND THE
WATER. WE MUST REMEMBER THE DANGERS POSED BY THE HIGHER RIVER
LEVELS GENERATED FROM THE MELTING SNOWPACK. THE ELEVATED FLOWS
IN THE RIVERS ARE STRONG...SWIFT AND POTENTIALLY DANGEROUS.
REMEMBER IT ONLY TAKES SIX INCHES OF FAST FLOWING WATER TO SWEEP
YOU OFF YOUR FEET.

HYPOTHERMIA IS A SECOND DANGER HIDDEN IN THESE COLD WATERS.
WATER TEMPERATURES ARE IN THE UPPER 40S AND LOWER 50S WHICH IS
MUCH BELOW NORMAL BODY TEMPERATURE. HYPOTHERMIA CAN SET IN
QUICKLY AS THE BODYS TEMPERATURE DROPS TO DANGEROUS LEVELS.
WARNING SIGNS FOR HYPOTHERMIA INCLUDE UNCONTROLLABLE
SHIVERING...MEMORY LOSS.. DISORIENTATION...INCOHERENCE...SLURRED
SPEECH...DROWSINESS AND APPARENT EXHAUSTION. HYPOTHERMIA CAN BE
FATAL.

WARM WEATHER FUN CAN QUICKLY TURN TO TRAGEDY! YEARLY...THE UNHEEDED DANGERS OF THE SPRING SNOWMELT SEASON END IN DEATH FOR UNWARY CALIFORNIA CITIZENS. DO NOT LET THIS HAPPEN TO YOU! REMEMBER THE DANGERS AND TAKE CARE IN OR NEAR THE WATER. PLEASE MONITOR CHILDREN VERY CLOSELY AS THEY ARE MORE SUSCEPTIBLE TO HYPOTHERMIA AND ARE MORE EASILY SWEEPED OFF THEIR FEET.

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(L to R): Mark Laphart (Tillamook County Commissioner), Tom Manning (Tillamook County Emergency Manager), Steve Todd (WFO Portland MIC), Tim Josi (Tillamook County Commissioner).

Mineral Industries (DOGAMI), Tillamook County Emergency Manager, Tillamook County Commissioners, and WFO Portland's MIC, Steve Todd, and WCM, Tyree Wilde. (Note: DOGAMI is the agency which produced the tsunami inundation maps for the Oregon Coast),

Tillamook County, Oregon Receives

TsunamiReady Designation: On May 4, WFO Portland conducted a TsunamiReady recognition ceremony in Tillamook, Oregon to designate Tillamook County as both TsunamiReady and StormReady. Tillamook County became the first TsunamiReady "county" in the continental U.S. to receive the TsunamiReady designation (17th TsunamiReady community in the nation). Several newspaper media from the local area as well as the local ABC television affiliate from Portland covered the event.

Guest speakers at the ceremony included the Director of Oregon Emergency Management, the Director of Oregon Department of Geology and



Gem County, Idaho Recognized as

StormReady: Gem County, Idaho was recognized on May 9 as the latest StormReady County in Idaho. Pictured here following the recognition ceremony (L to R): Michele Sherrer (Gem County Commissioner), Paul Flatt (WCM, WFO Boise), Robyn Heffernan (Meteorologist, WFO Boise), Sharon Pratt (Gem County Commission Chairwoman), John Jannuzzi (MIC, WFO Boise), Lan Smith (Gem County Commissioner), and Steve Buck (Gem County Emergency Manager).



(L to R): Ted Buehner (WCM, Seattle), Dr Larry Kalkstein (University of Delaware), and Tyree Wilde (WCM, Portland).

Partners in Preparedness Conference Held in Washington State: Washington State's Partners in Preparedness conference was held in Bellevue, Washington. Approximately 550 people attended, including emergency management representatives, business and industry professionals, government, schools, and non-profit volunteer organizations. NWS had a strong presence with the WCMs from all four Washington state NWS offices staffing an information booth. The booth focused on digital forecast products, StormReady/TsunamiReady, and NWR all-hazards. Seattle WCM Ted Buehner also taught a weather education session.

New Heat Health Warning System Begins in Seattle: WFO Seattle initiated its new Heat Health Watch/Warning System for the Seattle area on April 21. The public debut followed briefings to emergency managers on the new system at the state emergency management's Partners in Preparedness Conference and at the Puget Sound Chapter of the American Meteorological Society (AMS) earlier in the week. Dr Larry Kalkstein (pictured) led each of these briefings to introduce the community to the new heat watch/warning system, which is tailored for the Seattle area. Seattle is the 15th large city in the United States to begin using this system, since it first started in Philadelphia in 1995. Phoenix and Los Angeles have similar systems in place. Portland, Oregon is also scheduled to implement the new heat watch/warning system during Fiscal Year 2006.



Community Safety Day in Tucson: WFO Tucson participated in the Burn Buster Blast Community Safety Day sponsored by the Northwest Fire/Rescue District and KOLD TV (CBS affiliate). The Safety Fair included safety demonstrations for kids, entertainment, and safety and preparedness displays. Among the participants were several fire districts from metropolitan Tucson, safety officials from Pima County, Tucson Electric Power Company, the Red Cross, several city and local Police

departments, and Kris Johnson (ET) and Tom Evans (WCM) from the NWS. A redesigned display board, developed by Dawn Fishler (Student Met Intern), made its premier at this fair and captured the attention of many who passed by.



Meteorologist Sven Nelaimischkies assists a customer at the booth.

Medford Holds Open House: WFO Medford held an open house on May 7. The event was well-attended by the public and was covered by a local television station.

The office set up an information booth, offered tours, and provided a briefing on its local NWS web page and the National Digital Forecast Database (NDFD). The highlight of the day was a special weather balloon launch.



WCM Dave Soroka explains tornado vortex to a fair attendee.



ASA Lynn Trebler helps a youngster at the WFO's information table.

Monterey Supports Local

“Wind Festival”: On May 7, WFO Monterey participated in the International Festival of the Winds in Marina, California. The Festival was a celebration of wind and featured kite flying, hang gliding, skydiving, wind-related art and science projects, giant kite demonstrations, kite-making workshops, entertainment, and food. The NWS booth featured a tornado in a bottle and a home-made wind vane craft, for which

children visiting the booth were able to put the flaps on.



Brad Colman (SOO), Chris Hill (MIC), and Jim Prange (IMET) work the NWS booth.

Earth Day Activities in Seattle: WFO Seattle participated in a NOAA Open House on April 29 as a part of Earth Week activities. The family event was held in the Magnuson Park Recreation Center facility, adjacent to NOAA's office complex in Seattle. Eight NOAA line offices participated in the 2-hour event, which drew about 150 people. WFO Seattle staffed an information booth, showed a video, and also launched a “pilot balloon” (also known as a “pibal”) to the delight of dozens of children.



Jim Dudley conducts training in Yosemite Valley.

Yosemite Spotter Training: On May 5, WFO San Joaquin Valley conducted spotter training in Yosemite National Park. WCM Dan Gudgel and Lead Forecaster Jim Dudley held two classes that day. The first was at El Portal, where most of the park's administrative functions are performed. The second was in Yosemite Valley, where the majority of park personnel work. A total of 64 people were in attendance. Those trained included rangers, law enforcement, researchers, maintenance workers, and volunteers.



Western Region Marine Workshop:

Western Region hosted a Marine Weather Workshop at the Naval Postgraduate School in Monterey, California, on May 10-13. The workshop included forecasters from all seven Western Region coastal WFOs as well as forecasters from Alaska and Pacific Regions.

This year's workshop, as in previous years, brought in experts in many specific areas relevant to NOAA/NWS marine forecast operations to provide forecasters with

necessary information and skills needed to do their jobs better. Specialized topics this year included wave analysis and forecasting by Dr. Steve Lyons (The Weather Channel), satellite-derived winds by Dr. Michael Freilich (Oregon State University), numerical wave modeling by Dr. Hendrik Tolman (NCEP), future wave modeling techniques by Dr. Jeff Hanson (U.S. Army Corps of Engineers), Tsunamis and the Tsunami Warning System by Paul Whitmore (West Coast/Alaska Tsunami Warning Center), Coastal Winds by Dr. Wendell Nuss (Naval Postgraduate School), Operational Aspects of Marine Forecasting (Carol Ciliberti, WFO Eureka), National Data Buoy Center (NDBC) Operations by Dave Gilhousen (NDBC), Ocean Prediction Center (OPC) Products and Services by Dave Feit (OPC), Marine Customer Considerations and Local/Nearshore Wave Modeling (Troy Nicolini, WFO Eureka).

Seattle Supports Fire Weather Exercise: WFO Seattle participated in a Fire Weather Exercise on April 26 at Camp Murray, Washington. The exercise was hosted by Washington State Emergency Management and supported by Washington Governor Christine Gregoire. Exercise participants included the Washington State Patrol and the Washington State Departments of Transportation, Fish and Wildlife, Natural Resources, Ecology, Financial Management, and Military. Incident Meteorologist Jim Prange led off the exercise with a briefing on the NWS fire weather program, general fire weather patterns, and also provided the wildfire seasonal outlook.



Portland's WCM Tyree Wilde offers web address information to a customer.

Oregon Emergency Management

Conference: WFOs Portland and Medford participated in the first joint American Public Works Association/Oregon Emergency Management Spring Conference held in Canyonville, Oregon. County and city Emergency Managers attended the conference along with city and state public works officials. Seminar topics ranged from FEMA's flood mapping project and the Loma Prieta earthquake, to a time management class. Portland's Tyree Wilde (WCM) and Andy Bryant (Hydrologist), along with Ryan Sandler (WCM Medford), attended the conference and staffed a booth.

Aviation Program: The aviation section of the Area Forecast Discussion (AFD) from WFO Salt Lake City is being sent directly to the control tower and Terminal Radar Approach Control (TRACON) through the FAA's Systems Atlanta Information Display System (SAIDS). Previously the AFD was being read by the control tower and TRACON via the internet, however, the FAA does not consider internet products operational. The hard work and excellent customer service was provided by Al Martinelli and Mike Conger from WFO SLC.

Western Governor's Association Fire Weather Association Resolution Proposed:

In 2004, the Western Governor's Association (WGA) received a grant from NOAA to study the feasibility of establishing a Fire Weather Center at the National Interagency Fire Weather Center in Boise, Idaho. An interagency team, including Bruce Bauck and Roger Lamoni from Western Region, met several times over the last year to study this issue. Under the leadership of Shaun McGrath from the WGA, the team recently completed a draft resolution that will be presented at the next WGA meeting to be held in mid-June in Breckenridge, Colorado. More details of the resolution will be available pending final approval by the governors at the June meeting.

SCIENTIFIC SERVICES DIVISION

WR IFPS Mod-Note WR05-003 Released: Kirby Cook (WR/SSD) and Ron Miller (SOO/Spokane) released Mod note WR05-003 as the first implementation guide for the new WR IFPS process. The Mod Note is titled "Configuration changes for the GFE Formatter to allow standardization on UTC time at all WR WFOs."

The purpose of the mod note is to streamline the ISC process between WFOs and minimize workload associated with the coordination of grid edits. A regional policy has been drafted requiring all WR WFOs to convert from local time to UTC time by May 31,

2005. In addition to streamlining the coordination/collaboration process, this conversion to UTC will pave the way for the standardization of grid time-constraints in the future which will allow for further reduction of unnecessary workload.

This MOD note will detail the installation of overrides to the regional formatter files required at all WR WFOs. These formatter overrides will allow the local formatters to properly convert data from GFE grids on UTC time to text products based on local time. In addition, all offices should make sure that any non-hourly grids (except Max/Min T) are defined using UTC time constraints in their local configuration.

In general, the impact of aligning grids by UTC instead of LT should have little if any affect on routine grids and local formatters. Differences can manifest themselves mainly in instances where small grids of 1-6 hours in length are present in the gridded database.

New Science Paper: A new WR publication has been added to the web.

Technical Attachment 05-03: "IFPS Gridded Forecast Verification Statistics at WFO Salt Lake City", written by Linda Cheng (WFO SLC) and Chris Gibson (WFO SLC).

This TA documents the work being done at the Salt Lake office to derive gridded verification metrics at individual grid points or averages over multiple grid points corresponding to specific areas within the CWA domain. Results are presented for maximum and minimum temperature forecasts verified against a MatchObsAll analysis for the period of January to March, 2004.

TA's can be found at: <http://www.wrh.noaa.gov/wrh/pubs.php>.

HMT West Status: WR/SSD initiated a conversation on NOAA's upcoming Hydrology Meteorology Testbed (HMT) West field campaign being organized for 2005-2008. A kick off meeting was held in Sacramento to open a dialog between NOAA research scientists organizing HMT West and the NWS field offices that will benefit. Subsequently a series of conference calls have been held to include the NOAA labs that will participate. Early recommendations from this group have included a major focus on observed precipitation analysis in the North Fork American River basin and, if resources allow, a study of precipitation in a Sierra lee side basin. The combination of these two river basins is a formula for an exciting field campaign that will crosscut many boundaries that have limited field research campaigns in the past. This study will address research and operational questions, physical processes on the windward and lee side of the Sierra Nevada mountain range, and connect interests in hydrology and meteorology. Each of these cross cutting themes makes HMT West an exciting project with good potential to improve NWS operations.

Next Generation Satellites (GOES-N) Nearing Launch Date: The current series of Geostationary Operational Environmental Satellites (GOES-8 through 12) are aging and will be soon replaced. GOES 10 is the operational western satellite and GOES-12 is the eastern satellite. The next generation GOES satellites are called GOES N, O, and P. GOES-N is tentatively scheduled to be launched June 23, 2005. As with most rocket launches, there may be some slip in the launch schedule. Once in orbit, the satellite will undergo a lengthy check out and testing phase. The checkout process will last most of the summer and conclude by late August. GOES-N will be assigned a number at that time (GOES-13). After successful post-launch checkout at 90W longitude, the satellite will be placed in an on-orbit storage mode so that it can rapidly replace a failure of either GOES 10 or 12.

Summary of changes:

Imager - Several evolutionary technical improvements have been incorporated to GOES-N.

- *Better image navigation:* An advanced attitude control system provides improved instrument pointing performance which results in better image navigation and registration. The image location accuracy should improve to approximately two kilometers. The imagery will look a little sharper at full resolution and have improved earth location navigation (reduced shifting) during animation.
- *Slight changes to image types and resolution:* The changes to available imagery will vary depending on which satellite you are currently using. For GOES-10 (western satellite) users, a 13.3 micron channel will replace the 12 micron channel. This will affect some of the volcanic ash algorithms. The water vapor resolution will improve to 4km. For GOES-12 (eastern satellite) there will be no changes in imager or sounder resolutions from GOES-12.
- *Reduced schedule outages* - Added thermal shields to the secondary mirror structure to eliminate operational keep out zones and allow operations during eclipse periods. This means most of the scheduled early morning data outages will be eliminated during the twice per year eclipse season.
- *Better Infrared Image Calibration* - Cooler operational set points for the infrared detectors to allow clearer view of and improved thermal radiation to space, which should allow for better image calibration.
- *Better Cross Calibration of Sensors* - Some of the image sensors are really composed of a group of 8 sensors which scan systematically back and forth across the earth as a single entity. Minor calibration differences between these sensors result in striping within the scan lines of the image. Imager blackbody

dwell time has been increased from 0.2 to 2 seconds which should help reduce image striping.

Sounder - The Sounder has similar evolutionary improvements to the Imager.

Solar X-ray Imager and Space Environment Monitor - The Solar X-ray Imager monitors the sun. The Space Environment Monitor instrument package consists of in-situ measurements of the magnetic and particle environments as well as remote measurement of the integrated X-ray emission and the extreme ultraviolet (EUV) spectra of the Sun. For examples of use, please go to the NOAA Space Environment Center (SEC) web site at: <http://sec.noaa.gov/>. The COMET space weather training module can be found at: <http://meted.ucar.edu/spaceweather/intro/>.

GFE Facilitator/Technical Coordinator: In order to better support the field on technical issues related to IFPS and the digital forecast process, the WR Methodology Team recommended that a GFE Facilitator/Technical Coordinator position be created in SSD. This position would be considered the regional expert on technical issues associated with the Interactive Forecast Preparation System and specifically the Graphical Forecast Editor interface. Kirby Cook will be the lead. Aaron Sutula will be converted from a SCEP to a permanent position in early May and will work closely with Kirby. Together, Kirby and Aaron will provide the technical support.

To get started, some of the initial activities Kirby and Aaron will complete are.

- Basic Familiarization - SLC WFO working grid editing shifts
- Document Gridded Forecast Process - Office Visits – 5 offices
- Office Support
 - Set up Mod-Note and Training module process to document installation procedures and generate training modules (May)
 - Set up Lessons Learned page (May)
 - Set up WR NDFD/IFPS listserver (May)
 - Test and implement WR GFE application box (mid-June)

Since Kirby's and Aaron's primary mission is to help WR offices with technical issues associated with IFPS and digital services, their primary point(s) of contact will be the IFPS focal point(s) at each of the local offices. Kirby and Aaron will continue to tap various field experts as needed to for either guidance or gain personal knowledge on how to resolve technical issues or requests.

The WR Methodology Team will be the primary group that collects, resolves and prioritizes regional wide goals and changes. Kirby and Aaron will use the Methodology Team's list of priorities as the primary input to new implementation tasks. Carl Gorski (MSD) will be providing more information on the new IFPS decision process that was implemented last week.

New COMET Jet Streak Web Module: COMET has released a new Webcast on Jet Streak Circulations. It can be found at: <http://meted.ucar.edu/norlat/jetstreaks>

This Webcast is a presentation given by Dr. James T. Moore of Saint Louis University. Dr. Moore reviews many aspects of jet streak dynamics including convergence/divergence, vertical motion fields, ageostrophic winds, propagation, and coupled jets. The Webcast is 41 minutes in length and includes a quiz.

RFC and WFO QPF grids: During the last several months, SSD has been transmitting the CNRFC HAS QPF grids to the WFOs under the CNRFC umbrella. The grids are used as a first guess for the NDFD QPF grids, which can then be edited by the WFO forecasters. This emerged as a best practice during the WR SOO/DOH workshop. Kirby Cook has written WR Mod Notes 05-02 and 05-03 that provides configuration and set-up instructions.

Teletraining Session for May: The Virtual Institute for Satellite Integration Training (VISIT) and the Integrated Sensor Training Professional Development Series (ISTPDS) sessions are listed below. Offices can register for the teletraining sessions by sending email to: visit@comet.ucar.edu .

The teletraining calendar is at: <http://www.cira.colostate.edu/ramm/visit/ecal.asp>

The remaining sessions for May are:

- AWOC Core Strategies (May 25, 26, 31)
- AWOC Severe Applications (May 19, 24, 25, 26, 31)
- AVNFPS (May 25, 27)
- Downscaling Techniques (May 19, 31)
- Forecasting Convective Downbursts (May 26)
- Predicting Supercell Motion (May 24)

Advanced Warning Operations Course (AWOC): It is important that offices keep up with the training schedule. In WR, we have broken the two track deadlines up into first and second half of FY05. Completion will be tracked by LMS and reported in the WR Professional Development and Training plan.

March 31, 2005: Complete Core Track (WFO and CWSUs)

August 31, 2005: Complete Severe Weather Track (WFOs and highly recommended for CWSUs)

TBD (probably March, 2006): Winter Weather Track (WFOs)

For more info on AWOC and LMS go to; <http://wdtb.noaa.gov/courses/awoc/index.html>.

SYSTEMS OPERATIONS DIVISION



Cinco De Mayo Festivities: SOD hosted a Western Region celebration. Great food, music and times were had by all. The potluck was outstanding due to the culinary talents of those in attendance.

The winners of the salsa contest were Bob Diaz (for best tasting five alarm fire salsa), Sean Wink (for best tasting docile salsa), and Tonita Loveday for favorite Dish, Chile Verde.

New SOD Staff: Please join us in welcoming our newest members to SOD: Chris Hornbrook, Ahmad Gorabi, and Jim Pelton.

Chris Hornbrook was selected as an IT Specialist and will report to Salt Lake City in mid-June. Chris joins us from the NOAA Aviation Operations Center in Florida. Ahmad Gorabi was selected as an IT Specialist and will report to Salt Lake City in mid-June. Ahmad joins us from WFO Hastings Nebraska. Jim Pelton, a student at the University of Utah, joined SOD on May 16. Welcome Aboard!

UPS Failure: Lee Jenson, WR Facilities Technician, responded to a UPS failure at the Battle Mountain Nexrad site. Lee was assisted by Electronics Technician Jim Beavers. Their quick response correcting this failure ensured there was no loss of critical radar data or damage to expensive radar components.